

CLAIMS

1. An elliptically polarizing plate comprising a polarizer, a protective layer formed on one side of the polarizer, a first birefringent layer serving as a $\lambda/2$ plate, and a second birefringent layer serving as a $\lambda/4$ plate in the order given, wherein the first birefringent layer and the second birefringent layer are each formed by using a liquid crystal material.

2. An elliptically polarizing plate according to claim 1, wherein the first birefringent layer has a thickness of 0.5 to 5 μm .

3. An elliptically polarizing plate according to claim 1 or 2, wherein the second birefringent layer has a thickness of 0.3 to 3 μm .

4. An elliptically polarizing plate according to any one of claims 1 to 3, wherein a slow axis of the first birefringent layer is defined at one angle of +8° to +38° and -8° to -38° with respect to an absorption axis of the polarizer.

5. An elliptically polarizing plate according to any one of claims 1 to 4, wherein the absorption axis of the polarizer and

a slow axis of the second birefringent layer are substantially perpendicular to each other.

6. A method of producing an elliptically polarizing plate comprising the steps of:

subjecting a surface of a transparent protective film (T) to alignment treatment;

forming a first birefringent layer on the surface of the transparent protective film (T) subjected to the alignment treatment;

laminating a polarizer on a surface of the transparent protective film (T); and

laminating a second birefringent layer on a surface of the first birefringent layer, wherein

the polarizer and the first birefringent layer are arranged on opposite sides of the transparent protective film (T).

7. A method of producing an elliptically polarizing plate according to claim 6, wherein: the transparent protective film (T), the first birefringent layer, the polarizer, and the second birefringent layer comprise continuous films; and long sides of the transparent protective film (T), the first birefringent layer, the polarizer, and the second birefringent layer are attached together for lamination.

8. A method of producing an elliptically polarizing plate according to claim 6 or 7, wherein the step of forming a first birefringent layer comprises the steps of: applying an application liquid containing a liquid crystal material; and aligning the applied liquid crystal material through treatment at a temperature at which the liquid crystal material exhibits a liquid crystal phase.

9. A method of producing an elliptically polarizing plate according to claim 8, wherein: the liquid crystal material comprises at least one of a polymerizable monomer and a crosslinking monomer; and the step of aligning the liquid crystal material further comprises the step of performing at least one of polymerization treatment and crosslinking treatment.

10. A method of producing an elliptically polarizing plate according to claim 9, wherein at least one of the polymerization treatment and the crosslinking treatment is performed by one of heating and photoirradiation.

11. A method of producing an elliptically polarizing plate according to any one of claims 6 to 10, wherein the step of laminating a second birefringent layer comprises the steps of: applying an application liquid containing a liquid crystal material to a

substrate; forming a second birefringent layer on the substrate by subjecting the applied liquid crystal material to treatment at a temperature at which the liquid crystal material exhibits a liquid crystal phase; and transferring the second birefringent layer formed on the substrate to the surface of the first birefringent layer.

12. A method of producing an elliptically polarizing plate according to claim 11, wherein the substrate comprises a continuous film having an alignment axis in its width direction.

13. A method of producing an elliptically polarizing plate according to claim 11 or 12, wherein a variation in alignment axis of the substrate is $\pm 1^\circ$ or less with respect to an average direction of the alignment axes.

14. A method of producing an elliptically polarizing plate according to any one of claims 11 to 13, wherein the substrate comprises a polyethylene terephthalate film obtained through stretching treatment and recrystallization treatment.

15. A method of producing an elliptically polarizing plate according to any one of claims 11 to 14, wherein the substrate is used for the step of applying an application liquid without being subjected to alignment treatment on its surface.

16. An image display apparatus comprising the elliptically polarizing plate according to any one of claims 1 to 5.